

10/665,800 CAS Bios 9/7/05
=> file ca

=> s ((cytokinin? or kinetin?)(10a)(male(2a)steril?))/ab,bi

L1 19 ((CYTOKININ? OR KINETIN?)(10A)(MALE(2A)STERIL?))/AB,BI

=> file biosis

=> s l1

L2 12 ((CYTOKININ? OR KINETIN?)(10A)(MALE(2A)STERIL?))/AB,BI

=> dup rem

L3 25 DUP REM L1 L2 (6 DUPLICATES REMOVED)

=> d l3 1-25 ti py

L3 ANSWER 1 OF 25 CA COPYRIGHT 2005 ACS on STN
TI Reversible ***male*** ***sterility*** in transgenic plants by
expression of ***cytokinin*** oxidase
PY 2003

L3 ANSWER 2 OF 25 CA COPYRIGHT 2005 ACS on STN
TI Reversible male sterility in transgenic plants by expression of a
ga-insensitive mutant protein, gai
PY 2003

L3 ANSWER 3 OF 25 CA COPYRIGHT 2005 ACS on STN
TI Transgenic studies on the involvement of cytokinin and gibberellin in male
development
PY 2003

L3 ANSWER 4 OF 25 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Gai induced ***male*** ***sterility*** is reversible by
kinetin
PY 2002

L3 ANSWER 5 OF 25 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI gai induced ***male*** ***sterility*** is reversible by
kinetin
PY 2002

L3 ANSWER 6 OF 25 CA COPYRIGHT 2005 ACS on STN
TI Efficient callus induction and shoot regeneration by anther culture in
male sterile mutants of tomato (Lycopersicon esculentum Mill. cv. First)
PY 1999

L3 ANSWER 7 OF 25 CA COPYRIGHT 2005 ACS on STN
TI Male sterility associated with APRT deficiency in Arabidopsis thaliana
results from a mutation in the gene APT1
PY 1998

L3 ANSWER 8 OF 25 CA COPYRIGHT 2005 ACS on STN DUPLICATE 1
TI ***Cytokinin*** metabolism and ***cytokinin*** oxidase and adenine
phosphoribosyltransferase activity in ***male*** ***sterile***
Brassica napus leaves
PY 1997

L3 ANSWER 9 OF 25 CA COPYRIGHT 2005 ACS on STN
TI Plant regeneration from protoplasts of cytoplasmic male sterile lines of
rice (Oryza sativa L.)
PY 1995

L3 ANSWER 10 OF 25 CA COPYRIGHT 2005 ACS on STN
TI The involvement of plant growth substances, especially ***cytokinins***
, in a genic ***male*** ***sterile*** line of Brassica napus
PY 1993

L3 ANSWER 11 OF 25 CA COPYRIGHT 2005 ACS on STN
TI Metabolism of dihydrozeatin in floral buds of wild-type and a genic male
PY sterile line of rapeseed (Brassica napus L.)
1993

L3 ANSWER 12 OF 25 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
STN
TI ***Cytokinin*** metabolism and genic ***male*** ***sterility***
PY in rapeseed.
1993

L3 ANSWER 13 OF 25 CA COPYRIGHT 2005 ACS on STN
TI Endogenous hormones in seeds, germination behavior and early seedling
PY characteristics in a normal and ogura cytoplasmic male sterile line of
rapeseed (Brassica napus L.)
1992

L3 ANSWER 14 OF 25 CA COPYRIGHT 2005 ACS on STN DUPLICATE 2
TI ***Cytokinins*** in a normal line and the ogura (ogu) cytoplasmic
PY ***male*** - ***sterile*** line of rapeseed (Brassica napus)
1992

L3 ANSWER 15 OF 25 CA COPYRIGHT 2005 ACS on STN DUPLICATE 3
TI ***Cytokinins*** in a genic ***male*** ***sterile*** line of
PY Brassica napus
1992

L3 ANSWER 16 OF 25 CA COPYRIGHT 2005 ACS on STN
TI Induction of female parthenogenesis in Taigu nuclear male-sterile wheat
PY 1992

L3 ANSWER 17 OF 25 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
STN
TI BEAN GENETICS.
PY 1991

L3 ANSWER 18 OF 25 CA COPYRIGHT 2005 ACS on STN DUPLICATE 4
TI Comparative regenerative ability of internodal segments of wild type and a
PY genic male sterile line of rapeseed (Brassica napus) cultured in vitro
1991

L3 ANSWER 19 OF 25 CA COPYRIGHT 2005 ACS on STN
TI Gynodioecy in Plantago lanceolata. VI. Functions of cytokinins in
PY growth, development, and reproduction of two sex types
1989

L3 ANSWER 20 OF 25 CA COPYRIGHT 2005 ACS on STN DUPLICATE 5
TI Cytoplasmic ***male*** ***sterility*** in barley: evidence for
PY the involvement of ***cytokinins*** in fertility restoration
1982

L3 ANSWER 21 OF 25 CA COPYRIGHT 2005 ACS on STN
TI Cytoplasmic male sterility in barley. V. Physiological characterization
PY of the msml-Rfmla system
1980

L3 ANSWER 22 OF 25 CA COPYRIGHT 2005 ACS on STN DUPLICATE 6
TI Studies with the dioecious angiosperm Mercurialis annua L. (2n = 16):
PY correlation between genic and cytoplasmic ***male*** ***sterility***
, sex segregation and feminizing hormones (***cytokinins***)
1978

L3 ANSWER 23 OF 25 CA COPYRIGHT 2005 ACS on STN
TI Increased peroxidase activity and enhanced feminizing hormone levels as a
PY function of pollen sterility degree in the dioecious species Mercurialis
annua (2n = 16)
1978

L3 ANSWER 24 OF 25 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
STN
TI CULTURE EXPERIMENTS ON DIFFERENT SEX FLOWER BUDS OF CUCUMIS-MELO TREATED

WITH GROWTH SUBSTANCES.
PY 1976

L3 ANSWER 25 OF 25 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
STN
TI IN-VITRO CULTURE OF FLOWER BUDS OF HAWORTHIA-M AND ASTROLOBA-M.
PY 1970

=> d 13 ab 7-8 10-16 19-22 24

L3 ANSWER 7 OF 25 CA COPYRIGHT 2005 ACS on STN
AB Four mutants of *Arabidopsis thaliana* that are deficient in adenine phosphoribosyl transferase (APRT) activity have been isolated by selecting for germination of seeds and growth of the plantlets on a medium contg. 2,6-diaminopurine (DAP), a toxic analog of adenine. In all mutants, DAP resistance is due to a recessive nuclear mutation at a locus designated apt. The mutants are male sterile due to pollen abortion after meiosis. Furthermore, it has been shown that metab. of cytokinins is impaired in the mutant BM3, which has the lowest level of APRT activity among the mutants tested. However, three different cDNAs encoding APRT have been isolated in *A. thaliana* and this raised the question of the nature of the mutation which results in low APRT activity. The mutation was genetically mapped to chromosome I and lies within 6 cM of the phenotypic marker dis2, indicating that the mutation affects the APT1 gene, a result confirmed by sequencing of mutant alleles. The mutation in the allele apt1-3 is located at the 5' splicing site of the third intron, and eliminates a BstNI restriction site, as verified by southern blotting and PCR fragment length anal.

L3 ANSWER 8 OF 25 CA COPYRIGHT 2005 ACS on STN DUPLICATE 1
AB The metab. of [14C]zeatin (Z) and [3H]dihydrozeatin (DZ), and the activity of two key enzymes in cytokinin (CK) metab., i.e. CK oxidase and adenine phosphoribosyltransferase (APRT), was studied in the leaves of wild type (WT) and genic male sterile (GMS) plants of *Brassica napus*. The leaves of the GMS plants metabolized Z and dZ less efficiently compared to WT leaves. Adenine (Ade) was the major metabolite of Z in both the leaves, and GMS leaves produced 50% less Ade in comparison with WT leaves. This correlated well with the CK oxidase activity in the two types of leaves; WT leaves show twice the activity of this enzyme in comparison with GMS leaves. GMS leaves produced higher amts. of DZ nucleotide than the WT leaves, and this correlated with 17% more APRT activity in GMS leaves. There was no difference in the amt. of Z nucleotide produced by the two types of leaves. The results presented show that mutation in a gene controlling male fertility affects CK metab. in vegetative tissues, in addn. to reproductive tissues (reported earlier), and is related to the activity of at least two enzymes involved in CK metab.

L3 ANSWER 10 OF 25 CA COPYRIGHT 2005 ACS on STN
AB Unavailable

L3 ANSWER 11 OF 25 CA COPYRIGHT 2005 ACS on STN
AB The metab. of [3H]dihydrozeatin (DZ) in floral buds of three developmental stages, and endogenous cytokinin (CK) levels in mature stamens were investigated in wild-type (WT) and a genic male sterile (GMS) line of rapeseed (*Brassica napus*). Floral buds were fed [3H]DZ and subsequently different metabolites, namely nucleotides, ribosides and glucosides, were analyzed by 2D-TLC and HPLC. The GMS buds exhibited a higher initial uptake of [3H]DZ than wild-type buds, but the total uptake after 12 h was either similar or less in GMS buds. [3H]DZ was metabolized more efficiently in WT than in GMS buds, as more of [3H]DZ was retained in the latter. This was esp. the case in stage 2 buds, when in GMS anthers microspores fail to sep. from tetrads, thereby causing sterility. [3H]DZ was converted to dihydrozeatin nucleotide (DZNT), dihydrozeatin riboside and O-glucosides by both WT and GMS buds. However, all these metabolites were relatively low in GMS buds. The major difference was in the reduced formation of DZNT by stage 2 GMS buds. The GMS stamens also contained low levels of various CKs, including the nucleotides. These observations, along with earlier reports, suggest that low levels of endogenous CKs, and, in particular, the reduced formation of CK nucleotides are partly responsible for the breakdown of microsporogenesis in GMS anthers.

L3 ANSWER 12 OF 25 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
STN

L3 ANSWER 13 OF 25 CA COPYRIGHT 2005 ACS on STN

AB Endogenous hormones, namely cytokinins (CKs), IAA and abscisic acid (ABA) were quantified by specific ELISA in the mature seed of normal (cv. Westar) and ogura (ogu) cytoplasmic male sterile (CMS) lines of rapeseed (Brassica napus). Dihydrozeatin (DZ) and dihydrozeatin riboside (DZR) were the major CK base and riboside, resp., in seeds of both the normal and ogu CMS lines. The normal seed had more than 4-fold DZ levels in comparison to that of ogu CMS. On the other hand, the ogu CMS seed had higher levels of CK o-glucosides and CK nucleotides than normal seed. Seeds of the normal line contained 5-fold more IAA but had one-quarter the level of ABA in comparison to those of the ogu CMS line. The normal line also had greater seed diam. and wt. than the ogu CMS line and the normal seed germinated earlier than the male sterile seed. DZ (10⁻⁶ M) promoted the germination of ogu CMS seeds, but it was not comparable to that of the normal line. ABA (10⁻⁶ M) inhibited seed germination of ogu CMS but had little effect on the normal line. The normal seedlings had shorter primary roots, more lateral roots, longer hypocotyls, greater cotyledon fresh wt. and higher chlorophyll levels in comparison to ogu CMS seedlings. Exogenously supplied DZ, IAA and ABA affected the various parameters of both the normal and ogu CMS seedlings, but in most cases did not fully restore the differences in the two lines. Thus, in the ogura cytoplasmic male sterile line of B. napus a no. of seed and seedling characteristics are affected, and the altered seed morphol. is accompanied by changes in the levels of various hormones.

112
?

L3 ANSWER 14 OF 25 CA COPYRIGHT 2005 ACS on STN DUPLICATE 2

AB Cytokinin (CK) bases, ribosides, O-glucosides and nucleotides were analyzed by ELISA and Amaranthus betacyanin bioassay in xylem exudate, root, leaf, stem, inflorescence and mature flowers of normal and ogu cytoplasmic male sterile (CMS) line of rapeseed (Brassica napus). Dihydrozeatin (DZ) was the major CK in xylem sap. vegetative and floral tissues of normal plants. However, DZ along with its riboside or O-glucoside derivs. were identified as the main CKs in the xylem sap and vegetative tissues of the ogu CMS line, whereas none of the CKs were predominant in floral tissues. The highest level of DZ was found in the normal leaves. In general, the normal tissues had much higher levels of DZ in comparison to those of ogu CMS. Conversely, the ogu CMS tissues had more O-glucosides than the normal. The normal leaves also had higher chlorophyll and carotenoid contents, but lower chlorophyll a/b ratio, in comparison to ogu CMS leaves supporting the observations that the ogu CMS line is deficient in CKs. Thus, male sterility in ogu CMS line is, in part, related to a deficiency of active CKs, esp. DZ.

L3 ANSWER 15 OF 25 CA COPYRIGHT 2005 ACS on STN DUPLICATE 3

AB Endogenous cytokinin levels were analyzed in four different organs viz., root, stem, leaf and mature flower, of the wild type (cv. Westar) and a genic male sterile (GMS) line of B. napus. Various cytokinins viz., bases, ribosides, glucosides, and nucleotides were quantified using Amaranthus betacyanin bioassay and ELISA. The major cytokinin in all the organs was dihydrozeatin (DZ). In general, leaves had the highest levels of cytokinins as compared to the other organs. Root, stem and mature flowers of the wild type plants had higher levels of cytokinins and their metabolites than the GMS line. However, leaves of the GMS line had greater amt. of various cytokinins as compared to the wild type. The major cytokinin quant. different between the two lines was DZ. The results suggest the possible involvement of ***cytokinins*** in the expression of genic ***male*** ***sterility*** in Brassica napus.

L3 ANSWER 16 OF 25 CA COPYRIGHT 2005 ACS on STN

AB Spraying or injection of 500 ppm 4-chlorophenoxyacetic acid plus 100 ppm ***kinetin*** plus 2% DMSO to nuclear ***male*** - ***sterile*** wheat (Taigu biovar) induced female parthenogenesis. Lower induction rates were obsd. with 100 ppm NAA, 50 ppm gibberellin, 10 ppm kinetin, 10 ppm inositol; 10 ppm chlorocholine chloride (CCC), 100 ppm 2,4-D plus 0.1% colchicine, or 50 ppm nicotinic acid. Animal estrogen also induced the female parthenogenesis.

L3 ANSWER 19 OF 25 CA COPYRIGHT 2005 ACS on STN
AB Growth, development, and reprodn. of a hermaphrodite and a male sterile *Plantago lanceolata* were compared under controlled conditions. The male sterile plants produced more and longer spikes and had relatively longer styles. The male sterile plants achieved their final biomass sooner, by an earlier formation of side rosettes, and flowered earlier. The hypothesis was tested as to whether cytokinins are involved as a pleiotropic factor in the expression of sex and of various characteristics of the male sterile phenotype. The roots of the male sterile plants had higher concns. of putative zeatin riboside than those of the hermaphroditic plants, as quantified by ELISA after sepn. of cytokinins by HPLC. Spraying the plants with benzyladenine did not affect internal cytokinin concns. or sex expression. Benzyladenine spray stimulated the growth of the main rosette and floral initiation. Thus, cytokinins are possibly involved in detg. the morphol. differences between sex types in this species.

L3 ANSWER 20 OF 25 CA COPYRIGHT 2005 ACS on STN DUPLICATE 5
AB The hypothesis of the assocn. between an increase in cytokinin activity and restoration of anther fertility in msml cytoplasm was tested. The following barley lines with *Hordeum vulgare* cultivar Adorra nuclear gene background were studied: Adorra cytoplasm without nuclear restorer gene (fertile), Adorra cytoplasm homozygous for nuclear Rfmla gene (fertile), msml cytoplasm without restorer gene (male sterile), msml cytoplasm homozygous for nuclear Rfmla gene (fertile). Ethanolic exts. of root exudate were fractionated and bioassayed for cytokinins. Both the biol. activity and the total quantity of ***cytokinins*** appeared lowest in the unrestored ***male*** ***sterile*** line. The total biol. activities of cytokinins in the 3 fertile lines were similar, but the quantities in the restorer gene carriers appeared lower. On the other hand, the restorer gene carriers, independent of the cytoplasm, showed 8-9 times more of a bound cytokinin. Because the bound form is evidently underestd. by the bioassay, the increase in the bound cytokinin fraction may mean even a higher total content in the Rfmla gene carriers than in Adorra without the gene. The bound cytokinin may be translocated more readily to distal organs (e.g., the anthers) compared with unbound cytokinins. Because cytokinins are assocd. with various ecophysiol. processes, the rise in a particular form may explain the heterogeneous distribution of the restorer gene in wild barley populations in different regions of Israel. ✓

L3 ANSWER 21 OF 25 CA COPYRIGHT 2005 ACS on STN
AB The maternal male sterile barley msml with or without a dominant gene, Rfmla, which restores male fertility, was studied. Detd. with Na dodecyl sulfate polyacrylamide gel electrophoresis, the polypeptide pattern in the anthers of unrestored msml plants remained juvenile in the middle of anther development, 2 major zones being absent or weak. At the stage when anther development stopped in msml plants, the anther proteins appeared to be hydrolyzed to short-chain peptides. Restored plants, heterozygous for the restorer gene Rfmla, behaved like the near-isogenic normal barley cultivar Adorra. The total leaf protein pattern of young leaf tissue and the chloroplastidic membrane protein pattern were normal in msml cytoplasm when studied with this technique. Chlorophyll b was unnecessary for restoration by Rfmla, though the restored plants had a lower chlorophyll a/b ratio than an unrestored plant in the mature stem leaf. Mature stem leaf pieces of unrestored msml plants were induced to senesce with 20 mM NaCl soln. This senescence was inhibited by exogenous kinetin. Leaf pieces of restored msml plants or those of near-isogenic normal barley behaved in the same way in the NaCl soln. as in distd. water. Many features of the physiol. of restored plants can be explained as the function of cytokinins. Kernels of male sterile plants had a more rapid root elongation at germination than near-isogenic normal barley.

L3 ANSWER 22 OF 25 CA COPYRIGHT 2005 ACS on STN DUPLICATE 6
AB Male sterility of *M. annua* is controlled by a sterile S cytoplasm interacting with 3 nuclear genes: 1 inducer I and 2 fertility restorers R1 and R2. This system permits identification of the genotypes of the original ***male*** ***sterile*** mutant (used as female after sex conversion by ***cytokinins***), the constructed semi-sterile and restored fertile strains. Sex segregations in crosses between male fertile strains selected for their various degrees of sensitivity towards

feminizing hormones make it possible to explain sex determinism and male plurality by a system of 3 complementary genes. Crosses between these strains show that the cytoplasmic factor and R1 gene involved in male sterility also affect sex distribution. Comparative data between endogenous cytokinin levels, phenocopies obtained by feminizing hormone, and crosses demonstrate that all these strains constitute a series of male developmental "mutants" starting from strong males and continuing to weak males, semisterile and sterile males, and then females.

- L3 ANSWER 24 OF 25 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
- AB Excised male and female flower buds grown on White's basic medium and treated with representatives of various classes of growth substances show that alpha-naphthalene acetic acid [NAA] increased the size of pistillate flower buds and decreased the size of staminate flower buds. Opposite results were obtained with abscisic acid. GA, kinetin and Ethrel showed an increase in flower buds of both sexes. Morphactin reduced the size of staminate and pistillate flower buds. Maximum tendency towards feminization was recorded with NAA and minimum with morphactin. Male sterility was maximum when the medium was supplemented with NAA and chloroflurenol, and minimum with GA.

=> d 13 4-5 7-8 10-16 19-20 22

- L3 ANSWER 4 OF 25 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AN 2002:598647 BIOSIS
DN PREV200200598647
TI Gai induced ***male*** ***sterility*** is reversible by
kinetin
- AU Huang, Shihshieh [Reprint author]; Malloy, Kathleen P. [Reprint author]; Qi, Youlin; Cerny, R. Eric; Bhat, Deepti; Aydt, Carrie M.
- CS Mystic Research, Monsanto Company, Saint Louis, MO, USA *have*
shihshieh.huang@nal.monsanto.com
- SO Plant Biology (Rockville), (2002) Vol. 2002, pp. 117. print.
Meeting Info.: Annual Meeting of the American Society of Plant Biologists on Plant Biology. Denver, CO, USA. August 03-07, 2002. American Society of Plant Biologists.
- DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
- LA English
- ED Entered STN: 20 Nov 2002
Last Updated on STN: 20 Nov 2002

- L3 ANSWER 5 OF 25 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AN 2002:474785 BIOSIS
DN PREV200200474785
TI gai induced ***male*** ***sterility*** is reversible by
kinetin
- AU Huang, Shihshieh [Reprint author]; Qi, Youlin [Reprint author]; Cerny, R. Eric [Reprint author]; Bhat, Deepti [Reprint author]; Aydt, Carrie M. [Reprint author]; Malloy, Kathleen P. [Reprint author]
- CS Mystic Research/Monsanto Company, Mystic, CT, 06355, USA *have*
shihshieh.huang@nal.monsanto.com
- SO In Vitro Cellular and Developmental Biology Animal, (Spring, 2002) Vol. 38, No. Abstract, pp. 95.A. print.
Meeting Info.: 2002 Congress on In Vitro Biology. Orlando, FL, USA. June 25-29, 2002.
ISSN: 1071-2690.
- DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
Conference; (Meeting Poster)
- LA English
- ED Entered STN: 11 Sep 2002
Last Updated on STN: 11 Sep 2002

- L3 ANSWER 7 OF 25 CA COPYRIGHT 2005 ACS on STN
AN 129:1178 CA
TI Male sterility associated with APRT deficiency in Arabidopsis thaliana results from a mutation in the gene APT1
AU Gaillard, C.; Moffatt, B. A.; Blacker, M.; Laloue, M. ✓

CS Lab. Biol. Cellulaire, Inst. Natl. Recherche Agronomique, Versailles,
F-78026, Fr.
SO Molecular & General Genetics (1998), 257(3), 348-353
CODEN: MGGEAE; ISSN: 0026-8925
PB Springer-Verlag
DT Journal
LA English

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 8 OF 25 CA COPYRIGHT 2005 ACS on STN DUPLICATE 1
AN 126:209575 CA
TI ***Cytokinin*** metabolism and ***cytokinin*** oxidase and adenine
phosphoribosyltransferase activity in ***male*** ***sterile***
Brassica napus leaves
AU Shukla, Amit; Sawhney, Vipen K.
CS Dep. Crop Science Plant Ecology, Univ. Saskatchewan, Saskatoon, S7N 5A8,
Can.
SO Phytochemistry (1997), 44(3), 377-381 February
CODEN: PYTCAS; ISSN: 0031-9422
PB Elsevier
DT Journal
LA English

✓
printed

L3 ANSWER 10 OF 25 CA COPYRIGHT 2005 ACS on STN
AN 120:266123 CA
TI The involvement of plant growth substances, especially ***cytokinins***
, in a genic ***male*** ***sterile*** line of Brassica napus
AU Shukla, Amit
CS Univ. Saskatchewan, Saskatoon, SK, Can.
SO (1993) 171 pp. Avail.: NLC Order Number DANN82993
From: Diss. Abstr. Int. B 1994, 54(9), 4472-3
DT Dissertation
LA English

L3 ANSWER 11 OF 25 CA COPYRIGHT 2005 ACS on STN
AN 120:4758 CA
TI Metabolism of dihydrozeatin in floral buds of wild-type and a genic male
sterile line of rapeseed (Brassica napus L.)
AU Shukla, Amit; Sawhney, V. K.
CS Dep. Biol., Univ. Saskatchewan, Saskatoon, SK, S7N 0W0, Can.
SO Journal of Experimental Botany (1993), 44(266), 1497-505
CODEN: JEBOA6; ISSN: 0022-0957
DT Journal
LA English

✓
order

L3 ANSWER 12 OF 25 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
STN
AN 1993:402531 BIOSIS
DN PREV199345061356
TI ***Cytokinin*** metabolism and genic ***male*** ***sterility***
in rapeseed.
AU Shukla, Amit; Sawhney, V. K.
CS Dep. Biol., Univ. Saskatchewan, Saskatoon, Sask. S7N 0W0, Canada
SO Plant Physiology (Rockville), (1993) Vol. 102, No. 1 SUPPL., pp. 62.
Meeting Info.: Joint Annual Meeting of the American Society of Plant
Physiologists and the Canadian Society of Plant Physiologists (La Societe
Canadienne de Physiologie Vegetale). Minneapolis, Minnesota, USA. July
31-August 4, 1993.
CODEN: PLPHAY. ISSN: 0032-0889.
DT Conference; (Meeting)
LA English
ED Entered STN: 30 Aug 1993
Last Updated on STN: 31 Aug 1993

L3 ANSWER 13 OF 25 CA COPYRIGHT 2005 ACS on STN
AN 118:36042 CA
TI Endogenous hormones in seeds, germination behavior and early seedling
characteristics in a normal and ogura cytoplasmic male sterile line of
rapeseed (Brassica napus L.)
AU Singh, S.; Sawhney, V. K.

✓
order

CS Dep. Biol., Univ. Saskatchewan, Saskatoon, SK, S7N 0W0, Can.
SO Journal of Experimental Botany (1992), 43(256), 1497-505
CODEN: JEBOA6; ISSN: 0022-0957
DT Journal
LA English

L3 ANSWER 14 OF 25 CA COPYRIGHT 2005 ACS on STN DUPLICATE 2
AN 118:3900 CA
TI ***Cytokinins*** in a normal line and the ogura (ogu) cytoplasmic
male - ***sterile*** line of rapeseed (Brassica napus)
AU Singh, Santokh; Sawhney, Vipen K.
CS Dep. Biol., Univ. Saskatchewan, Saskatoon, SK, S7N 0W0, Can.
SO Plant Science (Shannon, Ireland) (1992), 86(2), 147-54
CODEN: PLSCE4; ISSN: 0168-9452
DT Journal
LA English

✓
order

L3 ANSWER 15 OF 25 CA COPYRIGHT 2005 ACS on STN DUPLICATE 3
AN 117:66663 CA
TI ***Cytokinins*** in a genic ***male*** ***sterile*** line of
Brassica napus
AU Shukla, Amit; Sawhney, V. K.
CS Dep. Biol., Univ. Saskatchewan, Saskatoon, SK, S7N 0W0, Can.
SO Physiologia Plantarum (1992), 85(1), 23-9
CODEN: PHPLAI; ISSN: 0031-9317
DT Journal
LA English

✓

L3 ANSWER 16 OF 25 CA COPYRIGHT 2005 ACS on STN
AN 119:45341 CA
TI Induction of female parthenogenesis in Taigu nuclear male-sterile wheat
AU Dong, Hongping; Sun, Yaozong; Wu, Xueren; Qin, Suping
CS Hebei Agric. Technol. Norm. Coll., Changli, 066600, Peop. Rep. China
SO Yichuan (1992), 14(4), 7-9
CODEN: ICHUDW; ISSN: 0253-9772
DT Journal
LA Chinese

L3 ANSWER 19 OF 25 CA COPYRIGHT 2005 ACS on STN
AN 112:4741 CA
TI Gynodioecy in Plantago lanceolata. VI. Functions of cytokinins in
growth, development, and reproduction of two sex types
AU Olff, H.; Kuiper, D.; Van Damme, J. M. M.; Kuiper, P. J. C.
CS Biol. Cent., Univ. Groningen, Haren, 9751 NN, Neth.
SO Canadian Journal of Botany (1989), 67(9), 2765-9
CODEN: CJBOAW; ISSN: 0008-4026
DT Journal
LA English

L3 ANSWER 20 OF 25 CA COPYRIGHT 2005 ACS on STN DUPLICATE 5
AN 98:50574 CA
TI Cytoplasmic ***male*** ***sterility*** in barley: evidence for
the involvement of ***cytokinins*** in fertility restoration
AU Ahokas, Hannu
CS Dep. Genet., Univ. Helsinki, Helsinki, SF-00100/10, Finland
SO Proceedings of the National Academy of Sciences of the United States of
America (1982), 79(24), 7605-8
CODEN: PNASA6; ISSN: 0027-8424
DT Journal
LA English

✓
printed

L3 ANSWER 22 OF 25 CA COPYRIGHT 2005 ACS on STN DUPLICATE 6
AN 90:69244 CA
TI Studies with the dioecious angiosperm Mercurialis annua L. (2n = 16):
correlation between genic and cytoplasmic ***male*** ***sterility***
, sex segregation and feminizing hormones (***cytokinins***)
AU Louis, J. P.; Durand, B.
CS Dep. Bot., Univ. Orleans, Orleans, Fr.
SO Molecular and General Genetics (1978), 165(3), 309-22
CODEN: MGGEAE; ISSN: 0026-8925
DT Journal

LA English

=> log y

STN INTERNATIONAL LOGOFF AT 19:07:36 ON 07 SEP 2005

10/065,800

WEST Search History

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DATE: Wednesday, September 07, 2005

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		<i>DB=USPT; PLUR=YES; OP=OR</i>	
<input type="checkbox"/>	L3	L2 not l1	17
<input type="checkbox"/>	L2	(cytokinin\$ or kinetin\$) same (male near2 steril\$)	25
<input type="checkbox"/>	L1	(cytokinin\$ or kinetin\$) near10 (male near2 steril\$)	8

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Search Results - Record(s) 1 through 8 of 8 returned.

☐ 1. Document ID: US 6617497 B1

L1: Entry 1 of 8

File: USPT

Sep 9, 2003

US-PAT-NO: 6617497

DOCUMENT-IDENTIFIER: US 6617497 B1

TITLE: Cytokinin oxidase

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw Ds
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☐ 2. Document ID: US 6603064 B1

L1: Entry 2 of 8

File: USPT

Aug 5, 2003

US-PAT-NO: 6603064

DOCUMENT-IDENTIFIER: US 6603064 B1

TITLE: Nuclear male sterile plants, method of producing same and methods to restore fertility

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw Ds
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☐ 3. Document ID: US 6262339 B1

L1: Entry 3 of 8

File: USPT

Jul 17, 2001

US-PAT-NO: 6262339

DOCUMENT-IDENTIFIER: US 6262339 B1

TITLE: Process for generating male sterile plants

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw Ds
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☐ 4. Document ID: US 6229066 B1

L1: Entry 4 of 8

File: USPT

May 8, 2001

US-PAT-NO: 6229066

DOCUMENT-IDENTIFIER: US 6229066 B1

TITLE: Cytokinin oxidase

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw De
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☐ 5. Document ID: US 6207883 B1

L1: Entry 5 of 8

File: USPT

Mar 27, 2001

US-PAT-NO: 6207883

DOCUMENT-IDENTIFIER: US 6207883 B1

TITLE: DNA sequences coding for a protein conferring male sterility

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw De
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☐ 6. Document ID: US 6005167 A

L1: Entry 6 of 8

File: USPT

Dec 21, 1999

US-PAT-NO: 6005167

DOCUMENT-IDENTIFIER: US 6005167 A

TITLE: Male-sterile plants, method for obtaining male-sterile plants and recombinant DNA for use therein

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw De
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☐ 7. Document ID: US 5955653 A

L1: Entry 7 of 8

File: USPT

Sep 21, 1999

US-PAT-NO: 5955653

DOCUMENT-IDENTIFIER: US 5955653 A

**** See image for Certificate of Correction ****

TITLE: Callase-related DNAs and their use in artificial male sterility

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw De
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☐ 8. Document ID: US 5723754 A

L1: Entry 8 of 8

File: USPT

Mar 3, 1998

US-PAT-NO: 5723754

DOCUMENT-IDENTIFIER: US 5723754 A

TITLE: Tapetum-specific promoters from Brassicaceae spp

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw De
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(cytokinin\$ or kinetin\$) near10 (male near2 steril\$)	8

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☐ 1. Document ID: US 6627799 B1

L3: Entry 1 of 17

File: USPT

Sep 30, 2003

US-PAT-NO: 6627799

DOCUMENT-IDENTIFIER: US 6627799 B1

TITLE: Plants with modified stamen cells

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw De
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☐ 2. Document ID: US 6600091 B1

L3: Entry 2 of 17

File: USPT

Jul 29, 2003

US-PAT-NO: 6600091

DOCUMENT-IDENTIFIER: US 6600091 B1

TITLE: Enzymes responsible for the metabolism of zeatin

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw De
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☐ 3. Document ID: US 6372967 B1

L3: Entry 3 of 17

File: USPT

Apr 16, 2002

US-PAT-NO: 6372967

DOCUMENT-IDENTIFIER: US 6372967 B1

TITLE: Plants with modified stamen cells

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw De
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☐ 4. Document ID: US 6344598 B1

L3: Entry 4 of 17

File: USPT

Feb 5, 2002

US-PAT-NO: 6344598

DOCUMENT-IDENTIFIER: US 6344598 B1

TITLE: Plants with modified stamen cells

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw De
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☐ 5. Document ID: US 6320097 B1

L3: Entry 5 of 17

File: USPT

Nov 20, 2001

US-PAT-NO: 6320097

DOCUMENT-IDENTIFIER: US 6320097 B1

TITLE: Plants with modified stamen cells

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw De
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☐ 6. Document ID: US 6316699 B1

L3: Entry 6 of 17

File: USPT

Nov 13, 2001

US-PAT-NO: 6316699

DOCUMENT-IDENTIFIER: US 6316699 B1

TITLE: Plants with modified stamen cells

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw De
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☐ 7. Document ID: US 6111070 A

L3: Entry 7 of 17

File: USPT

Aug 29, 2000

US-PAT-NO: 6111070

DOCUMENT-IDENTIFIER: US 6111070 A

**** See image for Certificate of Correction ****

TITLE: Polypeptides encoded by octopine T-DNA open reading frames

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw De
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☐ 8. Document ID: US 6090627 A

L3: Entry 8 of 17

File: USPT

Jul 18, 2000

US-PAT-NO: 6090627

DOCUMENT-IDENTIFIER: US 6090627 A

**** See image for Certificate of Correction ****

TITLE: Octopine T-DNA structural genes

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw De
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☐ 9. Document ID: US 5652354 A

L3: Entry 9 of 17

File: USPT

Jul 29, 1997

US-PAT-NO: 5652354

DOCUMENT-IDENTIFIER: US 5652354 A

**** See image for Certificate of Correction ****

TITLE: Stamen-selective promoters

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMC	Draw D
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☐ 10. Document ID: US 5608143 A

L3: Entry 10 of 17

File: USPT

Mar 4, 1997

US-PAT-NO: 5608143

DOCUMENT-IDENTIFIER: US 5608143 A

TITLE: External regulation of gene expression

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMC	Draw D
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☐ 11. Document ID: US 5591605 A

L3: Entry 11 of 17

File: USPT

Jan 7, 1997

US-PAT-NO: 5591605

DOCUMENT-IDENTIFIER: US 5591605 A

**** See image for Certificate of Correction ****

TITLE: Plant structural gene expression

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw. De
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☐ 12. Document ID: US 5578702 A

L3: Entry 12 of 17

File: USPT

Nov 26, 1996

US-PAT-NO: 5578702

DOCUMENT-IDENTIFIER: US 5578702 A

**** See image for Certificate of Correction ****

TITLE: Toxin active against lepidopteran insects

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw. De
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☐ 13. Document ID: US 5504200 A

L3: Entry 13 of 17

File: USPT

Apr 2, 1996

US-PAT-NO: 5504200

DOCUMENT-IDENTIFIER: US 5504200 A

**** See image for Certificate of Correction ****

TITLE: Plant gene expression

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw. De
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☐ 14. Document ID: US 5428147 A

L3: Entry 14 of 17

File: USPT

Jun 27, 1995

US-PAT-NO: 5428147

DOCUMENT-IDENTIFIER: US 5428147 A

• ** See image for Certificate of Correction **

TITLE: Octopine T-DNA promoters

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Drawn De
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☐ 15. Document ID: US 5364780 A

L3: Entry 15 of 17

File: USPT

Nov 15, 1994

US-PAT-NO: 5364780

DOCUMENT-IDENTIFIER: US 5364780 A

TITLE: External regulation of gene expression by inducible promoters

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Drawn De
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☐ 16. Document ID: US 5102796 A

L3: Entry 16 of 17

File: USPT

Apr 7, 1992

US-PAT-NO: 5102796

DOCUMENT-IDENTIFIER: US 5102796 A

** See image for Certificate of Correction **

TITLE: Plant structural gene expression

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Drawn De
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☐ 17. Document ID: US 4771002 A

L3: Entry 17 of 17

File: USPT

Sep 13, 1988

US-PAT-NO: 4771002

DOCUMENT-IDENTIFIER: US 4771002 A

** See image for Certificate of Correction **

TITLE: Transcription in plants and bacteria

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Drawn De
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